TYPES OF STREETLIGHTS

Currently there are four common types of lights available for illuminating streets and roads. They are commonly referred to as sodium vapor, induction, light-emitting diodes (LEDs), and metal halide.

Sodium vapor lights are gas discharge lamps that uses sodium to produce light. Electricity heats a tube containing sodium, which vaporizes and generates light. Sodium vapor lights are currently in widespread use for street illumination. These lamps emit a yellowish light. Compared with LEDs and induction lighting, sodium vapor lights are less energy efficient and have shorter life spans.

Induction lamps, also known as magnetic induction lights, are a modified form of fluorescent lamp that excites the phosphors in the lamp without a direct electrical connection. This excitation is induced via electromagnetic wave, hence the name induction. They have a long lifespan, which is generally between 65,000 and 100,000 hours depending on the lamp model. The main advantage of induction is its broad spectrum light characteristic, long lamp life.

LEDs don't use traditional technology utilizing a bulb. Instead, the light is generated by a light emitting diode, or a semiconductor, creating an effect known as electroluminescence. LEDs have a lifespan between 50,000 and 55,000 hours. The one area where LED technology offers an advantage over induction lamps is that light is more uniform at the edges than induction.

Because LEDs are solid-state devices, they are more resistant to vibration and impact compared to induction lamps, which are made of glass. Thus LED lamps are better suited for situations where high vibration is a consideration, such as in transportation and industrial machinery applications.

Metal halides are high intensity discharge (HID) lamps that are mostly used in stadium lighting. The light output lessens with time along with HPS. HID lights also distribute illuminance as well as high pressure sodium (HPS) lights. HIDs have lamp life similar to HPS, but shorter than LED or induction

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